was assumed when generic alternatives became available. **RESULTS:** The Spanish population with arterial hypertension over 35 years treated with combinations of ARBII and CCB with or without DIU was estimated at 990,000 patients in 2010, expecting to rise to 1.17 million patients in 2013. Total treatment costs for hypertension treatment over the next 3 years were estimated at €1.638 million before the introduction of SevikarHCT® and at €1.649 million after introduction. **CONCLUSIONS:** Although the introduction of SevikarHCT® adds incremental costs for the Spanish NHS, a decrease in the overall economic burden with or without the introduction of SevikarHCT® was observed from 2010. These budget savings can be explained by the effect in price drop caused by the availability of generics.

PCV43

BUDGET IMPACT OF THE IMPLEMENTATION OF A TREATMENT PROTOCOL FOR PULMONARY ARTERIAL HYPERTENSION IN A REFERRAL HOSPITAL

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OBJECTIVES: To examine evidence on efficacy and safety of oral drugs for pulmonary arterial hypertension (PAH). Analyze their utilization and their cost. To propose a treatment protocol based on efficacy, safety and efficiency. Calculate the estimated budget impact after its implementation. **METHODS:** A search was conducted in MEDLINE, EMBASE and Cochrane Database. Systematic reviews and meta-analysis of bosentan, ambrisentan, sildenafil or tadalafil in PAH (functional class II/III) were included. Their utilization was analyzed retrospectively in patients with primary or associated with connective tissue diseases pulmonary hypertension that started treatment during 2008 to 2010. The annual cost per patient for each alternative was calculated (standard dosage). A treatment protocol was developed, based on efficacy, safety, and efficiency. The incremental cost for each drug, and the potential savings if all patients start their treatment with the most cost-effective were calculated. **RESULTS:** No evidence was found to support the superiority of any treatment over another, in terms of efficacy and/or safety. Seventeen patients started treatment during the study period (47% bosentan, 41.2% sildenafil, 11.8% ambrisentan). Estimated annual cost per patient: 30,987.07, 26,861.93, 7,807.74 and 6,865.65 €, for bosentan, ambrisentan, sildenafil and tadalafil, respectively. In absence of significant differences in efficacy or safety, the treatment protocol was based on efficiency (sildenafil> tadalafil> ambrisentan> bosentan). Incremental cost (compared to sildenafil): 24,121.42, 19,996.28 and €942.09 for bosentan, ambrisentan and tadalafil, respectively. Estimated potential savings with implementation of protocol: 77,654.64 €/ year. **CONCLUSIONS:** No evidence supports the superiority of any treatment over another, so they could be considered equivalent therapeutic alternatives. Bosentan is most widely used drug in naïve patients. The cost associated with bosentan/ambrisentan is markedly greater to sildenafil/tadalafil. Establishing a protocol that prioritizes sildenafil/tadalafil use would help to more efficient management of resources.

PCV44

COST-UTILITY ASSOCIATED WITH DIFFERENT MONITORING STRATEGIES AMONG PATIENTS RECEIVING LONG-TERM ORAL ANTICOAGULATION THERAPY IN AUSTRIA

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OBJECTIVES: To ascertain the cost-utility of patient self-management (PSM) compared to standard monitoring among long-term oral anticoagulation therapy patients in Austria. **METHODS:** A Markov model was used to combine international effectiveness data and local cost and mortality data in a life-long simulation (closed cohort with a mean baseline age of 67 years). Costs were calculated using information on healthcare contacts from healthcare professionals and associated tariffs. Costs for standard monitoring were based on monthly visits to primary/outpatient settings and determination of PTZ levels. PSM costs included costs of the handheld device, materials, training and regular healthcare check-ups. Costs associated with complications (thrombotic and haemorrhagic events) in primary-care, acute care and rehabilitation settings were also considered, since complications occur at different rates between monitoring strategies. Sensitivity analyses were performed. **RESULTS:** PSM was associated with 15.9 life years or 10.7 QALYs compared to 14.6 life years or 9.4 QALYs with standard monitoring. Costs per patient for the entire period were €7,873 for PSM, €8,170 for monitoring by GPs, €8,354 for monitoring by community-based consultants and € 8,810 for monitoring at a hospital out-patient clinic. PSM was the dominant strategy for both the cost per life-year gained and cost per QALY analysis. Although PSM led to higher initial costs (between €908 and €916 per patient in the first year), follow-up costs were lower (between €228 and €235 per patient per year thereafter) due to lower frequency of health care visits. Standard monitoring was associated with monitoring costs of between €273 and €391 per patient per year. **CONCLUSIONS:** Encouraging suitable patients to self-manage leads to better health outcomes and lower costs. In Austria, initial costs are compensated by lower complication rates and associated costs and lower monitoring expenses. Cost-savings to the health sector could be accrued as soon as 3 years after patients switch strategies.

PCV45

HEALTH ECONOMIC EVALUATION OF TICAGRELOR IN PATIENTS WITH ACUTE CORONARY PATIENTS (ACS) BASED ON THE PLATO STUDY FROM A SPANISH HEALTH CARE PERSPECTIVE

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OBJECTIVES: PLATO was a multi centered, double blind, randomized study that included 18,624 ACS patients from 43 countries, comparing ticagrelor + aspirin versus clopidogrel + aspirin. The PLATO demonstrated that ticagrelor was superior on the primary composite endpoint: myocardial infarction, stroke, cardiovascular death (HR 0.84, 95% CI: 0.77 to 0.92) without an increase in major bleedings compared to clopidogrel, and whether the strategy of choice was invasive or conservative. The aim of this analysis is to estimate direct health care costs from a Spanish health care perspective (excluding drug costs because ticagrelor price has not yet been established). **METHODS:** Resource utilization was pre specified in the PLATO trial and included hospitalization bed days, investigations, interventions and blood products. Direct health care costs per patient at 12 months were estimated by multiplying the resource use with Spanish unit costs derived from the Spanish database e-salud, the GRDs of the Ministry of Health, published literature, and the CMBD 2008. **RESULTS:** Ticagrelor resulted in numerically fewer bed days (mean difference per patient 0.21, 95% CI -0.16 to 0.59), PCIs (mean difference per patient 0.01, 95% CI -0.01 to 0.03) and CABGs (mean difference per patient 0.01, 95% CI: 0.00 to 0.01). Ticagrelor is associated with €341 reduction per patient (95% CI: 31 to 652) in healthcare costs at 12 months compared to clopidogrel. The reduction in healthcare costs was mainly due to fewer hospital days and cardiovascular interventions in the ticagrelor group. The reduction in cost increased over the 12-month treatment period consistent with the rate of clinical events over time in the PLATO study. **CONCLUSIONS:** Treatment with ticagrelor is associated with cost savings in patients with ACS at 12 months compared with clopidogrel (excluding drug costs) from a Spanish health care perspective. However, the total cost savings will depend on drug price, data not available yet.

PCV46

CLINICAL AND ECONOMIC BURDEN OF MAJOR BLEEDING IN ABDOMINAL SURGERY PATIENTS

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OBJECTIVES: To assess the clinical and economic burden of major bleeding in abdominal surgery patients. **METHODS:** A retrospective study (January 1, 2005 to December 31, 2007) was conducted using a medical claims database. Patients included in the study were admitted to the hospital with abdominal surgery as their primary procedure. Patients' demographic, clinical and discharge statuses were compared using Chi-square testing and standardized differences. Risk-adjusted health care visits and costs were estimated using the General Linear Model (GLM). Potential risk factors for venous thromboembolism (VTE) events were selected using the Cox Proportional Hazard Regression Model. **RESULTS:** In patients identified with abdominal surgery (n=49,355), 773 (1.57%) suffered major bleeding in the 6-month follow-up period. Compared with patients who did not suffer major bleeding, patients who did were more likely to be older, have higher Charlson Comorbidity Index (CCI) scores and have other comorbid conditions such as cancer. The percentage of patients who had baseline emergency room (ER) visits was also higher in the major bleeding group. After risk-adjustment for pre-specified covariates, inpatient ($21,573 vs. $10,954), outpatient ($12,891 vs. $7,852) and pharmacy costs ($2,025 vs. $1,901) were higher for patients who suffered major bleeding. In addition, patients with major bleeding events had higher readmission rates (0.11% vs. 0.03%) during the follow-up period. **CONCLUSIONS:** Since the health care costs of patients with major bleeding events were significantly higher than those of patients without, it is important for individual hospitals to improve major bleeding prophylaxis therapy.

PCV47

ANALYSIS OF TRANSIENT ISCHEMIC ATTACK-RELATED CLINICAL OUTCOMES, HEALTH CARE UTILIZATION AND COST BURDEN OF PATIENTS WITH NON-VALVULAR ATRIAL FIBRILLATION

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OBJECTIVES: To estimate clinical outcomes, health care utilization and cost burden of patients who suffered a transient ischemic attack (TIA) during the 180 days after a diagnosis of non-valvular atrial fibrillation (NVAF) and compare it with patients who did not. **METHODS:** Based on 2005-2007 US insurance claim files, patients aged 65 years and older who have had two or more primary diagnoses of NVAF, occurring within 30 days of one another, were selected. The 180 days follow-up event rates, health care facility use and costs for patients with and without a TIA were compared. Risk adjustment was performed using the propensity score matching (PSM) method with the ProbChoice™ algorithm. **RESULTS:** A total of 18,575 patients were identified with NVAF, of which 163 (0.88%) suffered a TIA during the 180 days after the NVAF diagnosis. Patients were not significantly different in terms of gender, region, and baseline comorbid conditions. After PSM risk-adjustment for pre-specified covariates, outpatient emergency room (ER) visits (85.89% vs. 48.47% $p<0.0001$), cardiovascular-related length of stay (6.59 days vs. 5.57 days, $p<0.0001$) and ischemic stroke events (89.57 vs. 8 /100 person years, $p<0.0001$) were higher for patients who suffered a TIA compared to those who did not. Although risk-adjusted outpatient office visit, international normalized ratio (INR) testing, Coumadin outpatient visit, drug and other costs did not differ significantly between the two groups, patients who suffered a TIA had significantly higher inpatient ($21,740 vs. $22,663, $p<0.0001$) and total ($31,675 vs. $18,045, $p<0.0001$) expenditures. **CONCLUSIONS:** After adjusting for patient clinical and